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1 Please raise your right hand.

2 (Witness duly sworn.)

3 THE COURT: Please have a seat.

4 MR. KASPER: Your Honor, I'm going to use
5 demonstrative exhibits. Should I just set it up over there?

6 THE COURT: Whatever you want to do.

7 CRAIG ANDERSON, PLAINTIFFS' WITNESS, SWORN

8 DIRECT EXAMINATION

9 BY MR. KASPER:

10 Q Dr. Anderson, would you please state your name for the
11 record?

12 A Craig Allen Anderson.

13 Q And what do you do for a living, Dr. Anderson?

14 A I am a distinguished professor of psychology at Iowa State
15 University.

16 Q And how long have you been at Iowa State?

17 A This is my seventh year at Iowa State.

18 Q And what did you do before that?

19 A I was at the University of Missouri Columbia for eleven
20 years, and then I was at Rice University for eight years. One
21 year of that actually was spent as a visiting faculty member at
22 Ohio State University.

23 Q Okay. And, Dr. Anderson, do you have an opinion regarding
24 the relationship between violent video games and aggression?

25 A Yes, I do.

1 Q And do you hold that opinion to a reasonable degree of
2 scientific certainty?

3 A Yes, I do.

4 Q And what is that opinion?

5 A Based on all of the research and also to some extent on the
6 much more extensive research literature on television violence,
7 it seems clear that exposure to violent video games increases
8 aggressive behavior, aggressive thinking, physiological
9 arousal, aggressive feelings, and is also associated with a
10 decrease in prosocial behavior.

11 Q Okay. And when you say aggression, how do you define the
12 term aggression?

13 A Aggression in social psychology is defined as behavior that
14 is intended to harm another individual, and the assumption also
15 is that that other individual wishes to avoid that harm.

16 Q Okay. And then how do you define violence?

17 A We conceive of aggression as being along a continuum from
18 fairly mild to very severe, and violence is thought of
19 basically as aggression at the high end of this sort of
20 severity dimension.

21 Q Okay. And how do you define aggressive cognition or
22 aggressive thinking?

23 A Aggressive cognition, aggressive thinking -- we've sort of
24 used those interchangeably -- has to do with in some sense
25 beliefs about aggression, maybe attitudes towards aggression.

1 aggression?

2 A Yes. Somewhere around 30 publications on video game or
3 that included discussion of video games and aggression.

4 Q And how many of those were peer-reviewed?

5 A Let me think. It was probably 20 on video games and
6 aggression. Probably in the low 20s, not 30. I was thinking
7 media violence. And of those 20, probably around ten or so in
8 peer-reviewed journals.

9 Q Thank you.

10 MR. KASPER: I'm going to tender Defendants' Exhibit
11 Number 4, which is a copy of your C.V.

12 THE COURT: Is this the same one that's attached to
13 his declaration?

14 MR. KASPER: Yes

15 THE COURT: I don't need another one.

16 BY MR. KASPER:

17 Q Dr. Anderson, would you describe the general aggression
18 model?

19 A Yes. A general aggression model is an integration of a
20 number of other theories and data basically relating to the
21 sort of development, learning, instigation, and expression of
22 human aggression.

23 Q Okay. And when did you develop the model?

24 A We started working on that in the early 1990s. The first
25 publication that's clearly part of that model would have come

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1 out in the mid-1990s when we were doing mostly at that time
2 research on temperature effects on aggression.

3 Q And did you do a study with Dr. Bushman regarding the
4 general aggression model?

5 A We've developed -- Dr. Bushman has played an important part
6 in a couple of publications very specifically focused on
7 general aggression model. So has Professor Huesmann at
8 University of Michigan.

9 Q I'm going to hand you a copy of what has been marked as
10 Defendants' Exhibit Number 5. This is a copy of an article you
11 published -- it appears in the record -- called Effects of
12 Violent Video Games on Aggressive Behavior, Aggressive
13 Cognition, Aggressive Affect, Physiological Arousal, and
14 Prosocial Behavior that you published with Dr. Bushman; is that
15 correct?

16 A Yes, that is correct.

17 MR. KASPER: And the purpose of this, your Honor, is
18 on Page 355 of this article. The charts that Dr. Anderson is
19 going to be relying on appear in this publication.

20 BY MR. KASPER:

21 Q Would you briefly explain your general aggression model,
22 Dr. Anderson?

23 A Sure.

24 MR. KASPER: Your Honor, may he approach?

25 THE COURT: You can go down there, if you want, but

1 you're really going to have to struggle to keep your voice up
2 because you're soft-spoken, and you're not in front of a
3 microphone.

4 THE WITNESS: It's my allergies.

5 THE COURT: Okay.

6 THE WITNESS: Very few of my students would say I'm
7 soft-spoken.

8 BY THE WITNESS:

9 A Okay. There are sort of two major sort of segments to the
10 general aggression model. And, again, this is an attempt to
11 integrate social learning theory.

12 BY MR. KASPER:

13 Q Excuse me. What is social learning theory?

14 A Social learning theory is a theory about how people in
15 general, especially children, but adults, as well, learn lots
16 of their behaviors, attitudes, beliefs, and so on by observing
17 events around them, including watching television and so on.
18 Al Bandura is most closely identified with that work, and that
19 theory goes back to the 1960s, actually, some of that work.

20 So, again, the model is an attempt to kind of
21 integrate the insights from social learning theory and a number
22 of other sort of social cognitive theories in this domain,
23 including work by Leonard Berkowitz, who is an emeritus
24 professor at the University of Wisconsin, Ken Dodge and his
25 work on social information processing, and Russ Geen and his

1 work on affect aggression.

2 Again, the idea was to try to pull together a number
3 of theories that really seemed to have many of the same
4 underlying ideas and to try to pull it together in a way that
5 would be useful to researchers as a way of organizing lots of
6 information and lots of theoretical thoughts.

7 What this figure illustrates here, this is what we
8 call an episode, a social episode of some kind, of a social
9 encounter. And we can start at the top where we talk about
10 what kind of input variables we have, and we have person
11 variables and situation variables.

12 By person variables we mean things that the person
13 brings to the situation with them. So, it would be their
14 personality traits, their attitudes, their skills, beliefs, and
15 so on, but it would also include temporary mood states, things
16 like that. Situation variables would include whatever is
17 present in the situation. So, are there other people around or
18 is this person alone, are they in a bar, are they in a church,
19 have they been recently provoked, have they recently played a
20 violent video game, things like that. And these variables then
21 combine to influence a person's present internal state, which
22 is represented by cognition, cognitive variables of one kind or
23 another, affects, and arousal.

24 So, if I can get concrete, imagine a situation where a
25 child is in a lunchroom and while carrying their lunch tray,

1 someone bumps into them causing them to spill their milk or
2 juice or whatever it is they're drinking in lunchrooms these
3 days. One way the person variables can come into play here is
4 some children have this tendency to attribute such ambiguous
5 kind of events to hostile intent on the part of the person that
6 bumped them. So, there's a tendency for them to say, oh, that
7 was done on purpose, whereas others are less likely to draw
8 that kind of a conclusion, and this happens pretty quickly and
9 automatically. This is not necessarily a thoughtful process.

10 So, anyway, that can again influence this present
11 internal state. They may think this person did this on
12 purpose. They may get angry as a result of that. And down
13 here at this stage what we're talking about is a host of what
14 we call appraisal and decision processes. I think appraisal is
15 spelled wrong.

16 THE COURT: You need two "P"s. That's okay. So,
17 you'll get graded down.

18 THE WITNESS: Yes.

19 MR. KASPER: The lawyers will note that the mistake is
20 in the original, not in the blowup.

21 THE WITNESS: That's right.

22 THE COURT: So much for peer review.

23 THE WITNESS: That's right.

24 BY THE WITNESS:

25 A Okay. Some of these appraisal decision processes occur

1 very quickly without much awareness or thought. Some take more
2 time and thought. The idea, though, is that as a result of
3 these processes, at some point some kind of thoughtful action
4 emerges or some kind of impulsive action emerges, which in turn
5 then, of course, influences in some sense the outcome of this
6 social encounter. But, of course, that's not the end of the
7 story because what happens -- I mean, if a child interprets
8 this bump as intentional and then responds aggressively in some
9 way, then that becomes a provocation that enters into sort of
10 the next part of this continuing interaction cycle.

11 So, the way that aggression or nonaggression sort of
12 occurs here is dependent on, again, person variables, as well
13 as what's going on in the immediate situation. And in a sense
14 we can think of each time one of these events occurs, it is in
15 some sense a learning trial where one can learn what are the
16 consequences of certain kinds of actions, attitudes, beliefs,
17 things like that.

18 BY MR. KASPER:

19 Q And will you describe the concept of priming as it relates
20 to that?

21 A Yes. Priming in this context refers to the case where
22 certain kinds of situational cues can increase the likelihood
23 or increase the accessibility of certain kinds of thoughts or
24 certain kinds of knowledge structures.

25 Not in a video context, but in a somewhat different

1 aggression context, there's research showing that simply seeing
2 a photo of a gun -- a handgun, a rifle, whatever -- primes
3 aggressive thoughts, that is, it increases the accessibility of
4 aggressive thoughts, and that priming itself can lead to an
5 increase in the likelihood that aggressive behavior will occur
6 sometime fairly shortly after the prime took place.

7 Q Okay. And how many of these episodes that you're talking
8 about does a person have every day?

9 A Well, a lot of these kind of interactions take place very,
10 very quickly. And so, it could easily be thousands, certainly
11 hundreds, sort of depending on how big a scale you want to
12 draw.

13 Q And how does repeated exposure to media and video game
14 violence affect long term propensity for aggression? I think
15 that requires us to move over here.

16 THE COURT: Let me ask you this. If using this other
17 chart is going to take more than a few minutes, I'd rather hold
18 it until tomorrow morning.

19 MR. KASPER: This is probably a good place to stop.

20 THE COURT: Let's hold it until tomorrow.

21 MR. KASPER: Okay.

22 THE COURT: Okay. We'll be able to start at 9:45.

23 So, I'll see you then.

24 MR. SMITH: Thank you, your Honor.

25 THE COURT: This is Mr. Dryjanski. She wasn't there

1 when we gave the names. Give your name for the record.

2 MR. DRYJANSKI: Andrew Dryjanski. I represent
3 Attorney General Madigan and the Governor.

4 Earlier you had talked a little bit about the motions
5 to dismiss and how you might deal with those after this. Are
6 you --

7 THE COURT: No. I said as part of.

8 MR. DRYJANSKI: Are you going to hear --

9 THE COURT: Together with. I expect people to argue
10 whatever they want to argue at the end of this.

11 MR. DRYJANSKI: Okay. Thank you.

12 (Whereupon, the within trial was adjourned to Tuesday,
13 November 15, 2005, at 9:45 o'clock a.m.)

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IN THE UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

ENTERTAINMENT SOFTWARE)
ASSOCIATION, et al.,)
Plaintiffs,) No. 05 C 4265
v.) Chicago, Illinois
November 15, 2005
ROD BLAGOJEVICH, et al.,) 9:45 a.m.
Defendants.)

TRANSCRIPT OF PROCEEDINGS
BEFORE THE HONORABLE MATTHEW F. KENNELLY

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1 (The following proceedings were had in open court:)

2 THE CLERK: 05 C 4265, Entertainment v. Blagojevich.

3 THE COURT: Well, so much for 9:45.

4 All right, can the lawyers please give your names for
5 the record?

6 MR. SMITH: Paul Smith for the plaintiffs.

7 MS. FALLOW: Katherine Fallow for the plaintiffs.

8 MS. HARTNETT: Kathleen Hartnett for the plaintiffs

9 MR. SANDERS: David Sanders for the plaintiffs.

10 MR. KASPER: Michael Kasper for defendant Blagojevich.

11 MR. DEADY: Patrick Deady for defendant Blagojevich.

12 MR. DRYJANSKI: Andrew Dryjanski for defendants
13 Madigan and Blagojevich.

14 MR. GARCIA: And Stephen Garcia for defendant Devine.

15 THE COURT: Are we ready to resume with Professor
16 Anderson?

17 MR. KASPER: Yes, we are.

18 THE COURT: Come on right back up here and we will get
19 going.

20 Do you understand you are still under oath?

21 THE WITNESS: Yes.

22 THE COURT: Okay, you can start.

23 CRAIG ANDERSON, DEFENDANTS' WITNESS

24 PREVIOUSLY SWORN

25 CONTINUED DIRECT EXAMINATION

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1 BY MR. KASPER:

2 Q Professor Anderson, as you recall yesterday, we were
3 talking about the general aggression model before we broke, and
4 in particular we were talking about this concept of priming. I
5 was wondering if you could just begin by describing the concept
6 once again.

7 A Priming is the phenomenon in which some sort of cue in the
8 environment -- it can be a visual cue, auditory, it doesn't
9 matter -- leads to an increase in the accessibility of a
10 particular kind of thought or cognition.

11 So, for example, a photo of a gun for many people
12 automatically primes thoughts about violence.

13 Q How long does the priming effect take?

14 A There are kind of different types of priming, some of which
15 take place very, very quickly, less than a second in some
16 cases.

17 In the kind of situation that we are talking about
18 here, exposure to violent video games, it presumably would take
19 somewhat longer, somewhere on the order of maybe 5 minutes, 10
20 minutes, maybe even as long as 15 minutes or so. But it
21 certainly wouldn't take a really long time.

22 Q How does that relate to this concept of duration of play
23 that Dr. Williams was talking about yesterday?

24 A Well, what it really means is that there is no particular
25 reason to expect -- in a short-term experimental context, there

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1 is no real reason to expect that the effects of playing a
2 violent versus a nonviolent video game would get bigger over
3 time.

4 Q Why is that?

5 A Because the priming would take place and, in some sense,
6 reach maximal level fairly quickly. No one has really done the
7 studies to see exactly how long in this context is optimal.
8 But certainly 75 minutes, for example, of playing is much
9 longer than what it would be reasonable to expect that priming
10 would require.

11 Q Turning your attention to the second chart over here --

12 A Yes.

13 Q -- how does violent video game exposure affect the
14 long-term propensity for aggression?

15 A If I may?

16 THE COURT: That is fine.

17 THE WITNESS: The top part here that is labeled in
18 this version Repeated Violent Game Playing really contains an
19 awful lot of sort of history of psychological research from
20 several different domains. Social learning theory is in there,
21 cognitive psychology type processes, developmental processes,
22 and so on.

23 But basically the idea is that what one is really
24 doing is learning different kinds of knowledge structures,
25 rehearsing a particular way of thinking and decision-making,

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1 and, in addition, getting reinforced, that is rewarded, for
2 making decisions such as decisions about how to deal with
3 conflict by use of force.

4 Q So what is a knowledge structure?

5 A A knowledge structure is sort of a broad label for a
6 variety of kinds of basically variables that are thought to
7 exist internally, things like beliefs, attitudes, perceptual
8 schemata.

9 We can think of knowledge structures as ranging from
10 fairly -- what we might think as fairly simple kinds of ideas
11 such as how do you identify a chair. Well, someone has to
12 learn with experience what a chair is, how to perceive what a
13 chair is, or how does one learn how to read.

14 As Dr. Kronenberger kind of illustrated when he was
15 talking about Stroop effects, where color words are presented
16 sometimes in ink colors that don't match the words, so the word
17 "red" maybe printed in blue, and that turns out to be a
18 difficult kind of task to do because there is a conflict
19 between this automatic reading response. Well, it's automatic
20 in people who have learned how to read.

21 So this kind of a knowledge structure, in this case
22 about what a particular formation of letters and what that
23 means, happens -- takes place over time with practice and
24 eventually gets automatized.

25 Q You used the word "rehearsal" in the top box there. What

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1 types of behaviors are rehearsed in video games, in violent
2 video games?

3 A In violent video games, you rehearse really the whole
4 sequence. You rehearse, you practice being vigilant, that is,
5 looking for sources of threat. You practice identifying
6 sources of threat. You practice making decisions about how to
7 respond to that threat. And eventually you actually carry out
8 some form of action, typically a violent action to deal with
9 that threat, clicking a mouse button or something on the
10 keyboard or a pretend sort of gun of some kind.

11 Q Yesterday Dr. Williams used the term, hostile attribution
12 bias. Where does that fit into that chart?

13 A A hostile attribution bias is probably best thought of as a
14 type of fairly high level perceptual schemata, sort of a
15 propensity to see threat, see intentional harm in ambiguous
16 situations where harm may or may not have actually been
17 attendant.

18 Q And what happens as you go down further in the chart?

19 A The idea in developmental psychology, personal psychology,
20 and so on is that -- and that is why this model isn't really
21 just a model of video game playing; it is a much more general
22 model than that.

23 The idea is that with practice, these types of
24 schemata, knowledge structures and so on, essentially become
25 more chronically accessible or available for the person to use

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1 in situations that seem to fit that particular schemata.

2 Q Give me an example.

3 A Well, in terms of, like, hostile attribution bias, someone
4 who has developed this idea that when bad things happen to
5 them, it is probably caused by someone else, this idea of you
6 are looking for threat or, you know, insults or something along
7 that line.

8 What that means is that when one then gets in an
9 ambiguous situation where some kind of harm has been done, that
10 person is more likely to decide very quickly, in some cases
11 automatically, without even realizing they are making a
12 decision, but they are more likely to decide that the harm was
13 intentional.

14 And as a consequence of that, they are more likely to
15 respond, say, to that bump in the lunchroom that we talked
16 about yesterday with some kind of aggressive behavior on their
17 own.

18 Q How does that relate to the third box?

19 A Increase in aggressive personality. Basically these are
20 different ways that one's propensity to behave aggressively in
21 a variety of situations can be increased.

22 One thing I guess I should point out here is the
23 general aggression model does not specifically say that playing
24 a violent video game will influence each and every single one
25 of these. That actually is an empirical question, and there

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1 are studies showing some of these linkages in the video game
2 literature.

3 Again, the general aggression model was designed to be
4 general, not just a media violence model. But the idea, again,
5 is that these kind of rehearsals and practice and so on can
6 lead to an increase in aggressive personality, sort of loosely
7 defined, which in turn then can influence person variables and
8 actually situation variables.

9 Q What does that mean, the increase in the aggressive
10 personality regarding -- how does that relate to the bottom two
11 boxes?

12 A Well, there are lot of different ways of measuring
13 aggressive personality, but basically it's usually defined as a
14 tendency to respond more aggressively than what sort of non-
15 aggressive individuals or sort of normal individuals would
16 respond in a variety of situations.

17 Q And the two boxes down at the bottom, do they equate to the
18 top two boxes on the first chart?

19 A Yes. That is actually how one gets from all this learning
20 aspect of the model back to any particular episode is an
21 increase in aggressive personality over time.

22 Well, first of all, that is a person variable, so that
23 any situation that one goes into, they are sort of bringing
24 these now well-rehearsed knowledge structures with them. So if
25 the situation happens to be one that involves a provocation of

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1 some kind or an ambiguous provocation of some kind, it
2 increases the likelihood that the person will interpret it and
3 act on it as if it was an intentional action that requires an
4 aggressive response.

5 It is also the case that as children, for example,
6 become more aggressive, the kind of situations that they find
7 themselves in also tends to change; that is, their social
8 relationships with say, parents, or peers or teachers tend to
9 deteriorate, and so they start interacting with a -- or there
10 is a tendency for them to start hanging out more with other
11 kids who have in some sense become social rejects from the
12 classroom or wherever they are.

13 Q And you talked also in your research about the concept of
14 pro social behavior. How does that apply in this situation?

15 A It's -- that hasn't seen as much research, but there is
16 some research suggesting that if one --

17 Well, let me back up a second. The one way in which
18 exposure to violent media in general, exposure to violent video
19 games can decrease pro social behavior is through this
20 aggression desensitization box. And desensitization here
21 really refers to a decrease in negative emotional reactions to
22 violence or scenes of violence.

23 Typically when children and both adults as well see a
24 scene of violence or see someone being injured or in pain or
25 whatever, they have a fairly strong emotional reaction to it.

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1 you ever done a meta-analysis involving video games?

2 A Yes, I have.

3 Q And when did you do your first meta-analysis?

4 A The first one was published in 2001 with Brad Bushman, who
5 is now at the University of Michigan.

6 Q Again, Dr. Williams talked about this briefly, but can you
7 just very briefly describe the meta-analysis?

8 A Yes. Basically meta-analysis is a set of statistical
9 procedures used to combine the results of studies of, let's
10 say, the same hypothesis, so that you can get an overall view
11 of what does this research literature in general tend to show
12 us.

13 Q What were the results of your 2001 meta-analysis?

14 A The 2001 meta-analysis found that exposure to violent video
15 games was associated with increases in aggressive behavior,
16 aggressive thinking or cognitions, aggressive affect and
17 physiological arousal and was also associated with a decrease
18 in pro social behavior.

19 Q Have you done any other meta-analyses?

20 A Yes.

21 Q When was the next one?

22 A The next one would have been published in 2003.

23 Q What was the difference between the second one and the
24 first one?

25 A One of the things in the 2003 meta-analysis that we did --

1 Well, first of all, there were a few more studies
2 added because a few more studies had come out. And, in
3 addition, we did a separate breakdown of studies that used
4 participants, I believe it was 18-years-old or younger.

5 Q What was your finding in the 2003 meta-analysis?

6 A As I recall, we had essentially the same findings. If I
7 remember right, there weren't enough studies of physiological
8 arousal that had used younger populations.

9 But the other four effects were essentially the same
10 as in the 2001 meta-analysis.

11 Q Have you done any other meta-analyses?

12 A We have in 2004 published an updated meta-analysis.

13 Q What was the difference between the 2004 and the 2003
14 version?

15 A One of the key differences is that we went in and
16 identified what we call best practices or violations of best
17 practices in this area and then calculated average effect
18 sizes, basically meta-analysis, for studies that are considered
19 best practices studies versus those that had at least one of
20 these kind of not best practices features.

21 Q What are some of the best practices?

22 A One of the best practices features involves, particularly
23 like in correlational studies, using a measure of time spent
24 playing any kind of video game as a predictor variable instead
25 of something that more specifically focused on video game

1 violence exposure.

2 Q What were the results of that meta-analysis?

3 A The results were essentially that, when you combine all the
4 studies, that you get significant effects, the same five
5 significant effects, but that those effect sizes are somewhat
6 larger in the best practices studies than they are in the not
7 best practices studies.

8 Q Yesterday we heard a lot about Dr. Williams' study. Are
9 you familiar with his study?

10 A Yes, I am.

11 Q What were his findings?

12 A His basic finding was no appreciable change in arguments
13 over the course of this -- over this one-month study as a
14 function of playing what was Asheron's Call 2.

15 Q Were you surprised by those findings?

16 A No, not at all, not once I read the methodology.

17 Q Why not?

18 A There are a number of problems with that study, one of
19 which is the age, you know, the average age of 27. You know,
20 would you really expect major changes in personality
21 essentially involving fights and whatnot to occur after playing
22 a violent game for one month?

23 Another problem is all of these participants, or at
24 least it looked like all of these participants, certainly a
25 huge portion of them, are very experienced computer users and

1 A The measure of aggression is suspect in a couple of ways.
2 One is that measurement of argument is essentially a measure of
3 verbal aggression. At least that is how it would usually be
4 coded in the research literature.

5 And video games typically, for the most part, are
6 modeling physical aggression. And as we have seen in some of
7 the correlational studies, violent video game exposure tends to
8 correlate better with measures of physical aggression than with
9 measures of verbal aggression. So the measure itself is a
10 little bit strange.

11 Using whether or not you had a fight in the last month
12 creates somewhat of a problem, not insurmountable, in some
13 ways, but basically people who had reported that they had been
14 in an argument at time one could not show an increase in
15 aggression across time no matter what. I mean, the most they
16 could do at time two was show that they had another argument.

17 Similarly, we know one of the other measures, argument
18 with a spouse, boyfriend, whatever, but we don't know what
19 portion of the subjects didn't have a spouse, boyfriend,
20 significant other, girlfriend, I mean, whatever the measure
21 was.

22 I guess I would also like to point out that this
23 argument, this whole bit about reliability of measures, you can
24 -- in this dissertation, you essentially have two measures of
25 aggression, and this was arguments with friends, arguments with

1 all is that, again, these are experimental studies, subjects
2 randomly assigned to play a violent game or a nonviolent game.
3 So the effect size depends not only on the characteristics of
4 the violent game, but also on the characteristics of the
5 nonviolent game.

6 They used two very different nonviolent games. The
7 game that Hoffman used, Sonic 2, actually has some aggressive
8 behavior in it whereas the game that Ballard and Weist used was
9 a game call Corner Pocket that is basically a billiards game.
10 So the studies really aren't comparable at all.

11 And, realistically, if you really want to know what
12 the time course is, what are the time effects, the way to do it
13 is not by comparing studies in some kind of meta-analysis that
14 way because the methods are different, the subject populations
15 are different and so on; the right way to do that is to do a
16 study where you randomly assign people to play either a violent
17 or nonviolent game, and then you have some of them randomly
18 assigned to play the game for 10 minutes and some for 20 and
19 some for 30 and so on.

20 Q Okay.

21 A That study hasn't been done.

22 Q Dr. Anderson, in your opinion, are there characteristics of
23 violent video games that differentiate them from television?

24 A Yes, there are, and actually Dr. Williams, I believe,
25 talked a little bit about them.

1 One of the big differences is that in a violent video
2 game, you have to identify with the violent -- with one of the
3 violent characters; that is, the character that you control.
4 You in some sense become that character. And that is a little
5 bit different from what happens when watching a t.v. show, not
6 to say that people don't identify with characters, but they
7 don't have to. They don't become that person.

8 Q Do you rely on any research in making that study?

9 A Pardon?

10 Q Do you rely on any research or any authority in making that
11 statement about the identification?

12 A There is research showing that, in the television violence
13 literature, that children who identify more strongly with
14 aggressive characters tend to show bigger effects of television
15 violence across time.

16 Q Are there any other characteristics of video games?

17 A One is, in a video game, as an active participant as
18 opposed to a passive participant.

19 Q What do you mean by that?

20 A By that you basically are determining the course of the
21 game. Again, this gets back to you're looking for threats and
22 deciding how to deal with them and deciding how to accomplish
23 whatever goals you have in the game.

24 Q Are there any others?

25 A You also get to, or have to, rehearse sort of the entire

1 aggression sequence.

2 Q What do you mean by that, the entire aggression sequence?

3 A That goes back to this idea that you are perceptually sort
4 of looking for sources of threat or enemies and making
5 decisions about how to deal with it and then actually carrying
6 out that action.

7 Q How does that relate to this chart here?

8 A In a sense what you are really doing is sort of a virtual
9 social encounter. You are practicing all the pieces in the
10 computer world, but you're practicing social behaviors or anti-
11 social behaviors and the decision processes and so on that go
12 along with it.

13 Q Dr. Anderson, would you please summarize your professional
14 opinion on the effects of violent video game exposure on
15 aggression?

16 A Yes. Based on all the research literature, based on other
17 theories and data involving personality, cognitive development,
18 and so on, it is my opinion that in fact -- and based on the
19 t.v. movie violence literature as well, that exposure to
20 violent video games increases aggression, increases aggressive
21 thoughts, increases aggressive affect. I am less concerned
22 about increases in physiological arousal, but in terms of the
23 pieces that matter to this case, those are my conclusions.

24 Q You have used the term "effect size" throughout your
25 testimony. In terms of the effect size of video game violence

1 exposure dissipate fairly quickly?

2 A No. This section specifically refers to short term
3 effects.

4 Q Okay. Let's turn over then to the next section, which
5 refers to the long term effects. That would be paragraph 14.
6 And you say there that the most relevant long term effects of
7 repeated exposure to violent media are an increase in
8 aggressive behavior, an increase in positive attitudes,
9 beliefs, and thought processes, and a reduction of normal
10 inhibitions against aggression; is that right?

11 A Yes.

12 Q Okay. So, now, we understand the increase in aggressive
13 behavior. The other two are effectively mechanisms that lead
14 to an increase of aggressive behavior? Is that fair to say?

15 A Yes.

16 Q And essentially what those are are part of your model over
17 here, the part that reflected how exposure to particular media
18 lead to a more aggressive set of attitudes or beliefs or
19 perceptions about the word, right?

20 A Yes.

21 Q Okay. So, just so I understand it, ultimately all of that
22 part of your testimony, in terms of attitudes and beliefs and
23 perceptions, effectively those are all things which you
24 ultimately say are harmful because those ways of thinking and
25 feeling lead to aggressive behavior; is that right?

1 A Yes and no. Yes in the sense that they are what seems to
2 lead to increases in aggressive behavior. What's less -- I
3 guess the part that I wouldn't necessarily agree with is
4 whether or not that's the only harm.

5 Q I guess that's what I'm trying to isolate, if I could, so
6 we know what's at stake here, Professor.

7 Is there some long term serious effect of playing
8 video games other than this behavioral effect which you're
9 telling us about that the court should be taking into account?

10 A If, in fact, one views thinking of the world in a more
11 aggressive kind of way as harmful and getting into more fights,
12 what does that impact -- what impact does that have on other
13 sort of psychological things, presumably there could be other
14 harms, as well.

15 Q So, just so I understand it, you've now identified in
16 addition to aggressive behavior thinking about the world in a
17 more aggressive way --

18 A Aggressive cognitions.

19 Q -- and then the psychological effects of getting into
20 fights? What did you mean by that?

21 A Again, this is hypothetical. We don't have -- well, there
22 is at least one study, correlational study, showing
23 increased -- showing an association between violent video game
24 play and problems, sort of psychological problems.

25 Q You mean clinical problems?

1 people in your field are about the same on both sides of that
2 line?

3 A Yes, for the most part.

4 Q So, that's about a .2 correlation, you said --

5 A Right.

6 Q -- is roughly where we are?

7 A Yeah, roughly.

8 Q Or about 4 percent of the variance; is that right?

9 A Four percent of the variance here is a statistical concept.
10 It's not easily translated into understandable terms, but yes.

11 Q But that is, in fact, the statistical concept. You square
12 the correlation, and you get the R squared, and that gives you
13 the 4 percent of the variance. Now, you were about to clarify
14 that that's --

15 THE COURT: Hang on just one second, Mr. Smith.

16 (Brief pause.)

17 THE COURT: Go ahead.

18 BY MR. SMITH:

19 Q That 4 percent of the variance, roughly speaking, doesn't
20 mean that exposure to violent media causes 4 percent of the
21 aggression among people who'd had that exposure, does it?

22 A Right. It does not mean that.

23 Q What it means is if you could somehow -- for example, in
24 the experimental context, if you expose a pool of people to
25 games, either a violent game or a less violent game, and then

1 you give them sort of a test, like the noise blast, you're
2 going to have a vast range of difference in terms of how long
3 they hold that button down or how hard they push it, and of
4 that vast range, only 4 percent of that variation is in any way
5 statistically linked to the fact that they've just either
6 played a violent game or a nonviolent game?

7 A Yes.

8 Q 96 percent of that variation has to do with something else
9 altogether in what they brought into the room?

10 A Yes.

11 Q And, in fact, just so we understand it, if you look at the
12 research overall, in your judgment, if you're trying to predict
13 not immediate aggressive behavior like noise blasts, but long
14 term criminal behavior, serious violence, the effect size is
15 actually quite a bit less than .2; isn't that right?

16 A If you're trying to predict -- yeah. It tends to go down
17 the more severe form of aggressive behavior one is looking at,
18 and that would be true of any predictor.

19 Q Right. Because it's farther away and because it's a rare
20 event?

21 A Essentially, yes.

22 Q Now, just so I understand it, this .1 or -- it's more like
23 .1 for the more serious violence?

24 A It ranges from about .13 to a little bit larger, but the
25 .13 is one estimate that gets used a lot.

1 A That is correct.

2 Q Now, you mentioned a couple of times that there are other
3 kinds of stimuli other than video games that can kind of
4 trigger this GAM model that you have, and I think you've
5 mentioned a couple times that just viewing a picture of a gun
6 can lead somebody in experimental research to be more
7 aggressive?

8 A Yes, that's true.

9 Q In fact, you did a study like that and published it, right?

10 A Yes.

11 Q And what that illustrates is that there are probably almost
12 an infinite number of stimuli that you could give somebody in
13 one of these experimental situations and show some immediate
14 priming of slightly more aggressive behavior in the aftermath,
15 right?

16 A Infinite is very big, but yes. Stimuli that are associated
17 with aggressive thinking.

18 Q Yes.

19 A It would be a very large number.

20 Q So, the fact that you have focused on video games is
21 largely a matter of your choice rather than some suggestion
22 that they're different from the large number of other things
23 that could have exactly the same effect in the experimental
24 context, right?

25 A Yes.